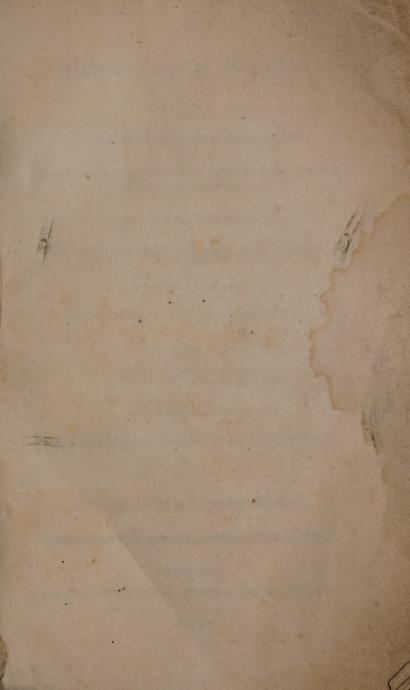
Meteorological Register kept at mansfield Wood house in notting hamshire From 1785 to 1800 By Hay man Rooke

44546/B 252





### Meteorological Register,

KEPT AT

Mansfield Woodhouse, in Nottinghamshire;

FROM THE COMMENCEMENT OF THE YEAR 1785, TO THE END OF THE YEAR 1794.

TO WHICH ARE SUBJOINED,

The most probable Indications of Weather,

DEDUCIBLE FROM THE

CHANGES IN THE BAROMETER:

WITH

### TWO PLATES:

DESCRIBING THE

EXTRAORDINARY EFFECTS OF LIGHTNING.

AND THE

Appearance of a Singular Meteor.

Nottingham:

PRINTED BY S. TUPMAN, OPPOSITE THE WHITE LION.

1795.

### The Right Hon. Frederick Montagu;

AS AN

ENLIGHTENED JUDGE,

AND

CONSTANT FAVOURER

OF ALL ENDEAVOURS TENDING TO THE

Advancement of Science:

AND IN

ACKNOWLEDGEMENT OF HIS HIGHLY VALUED FRIENDSHIP TO THE COMPILER, THIS

LITTLE TRACT,

IS RESPECTFULLY INSCRIBED,

By His very Faithful,

And Obedient

Humble Servant,

HAYMAN ROOKE.

MANSFIELD WOODHOUSE, April, 1795.

### PREFACE.

A Very respectable Friend having expressed a wish to see a REGISTER of the WEATHER for the last Ten Years, I have been induced to Publish the following Abridgement of my METEOROLOGICAL JOURNAL. Wishing to render this trifle acceptable to Him and the rest of my Friends, (for whom only it is printed,) I have added some Observations on the BAROMETER, taken from the Works of Meteorologists.

The very extraordinary and powerful Effects of Lightning, herein mentioned, to which I was an Eye-witness, will shew how necessary it is to have Conductors.

As the variation of the Compass may be looked upon as one of the extraordinary Phænomena of Nature, I have given the declination of the Magnatic Needle in England, from the Year 1576 to the Year 1780.

It will be necessary to observe, in the Register of the Weather, that the first Column includes every Day of Frost in that Month, many of which being fine Days, are reckoned in the Column of Fair, so that the number of Days set down, will sometimes appear to be more than there are in that Month; as in the Month of February 1785, where there are 22 Days of Frost, 9 of Snow, 4 of Rain, and 15 Fair, which added together, make 50 Days; but if the 22 Days Frost, which are included in the Columns of Snow and Fair, be deducted, there will then remain 28 Days; so in some of the other Months.

The greatest rise and fall of Fahrenheisl's Thermometer, are marked at the bottom of the Annual Registers.

I do not pretend to offer this as a Philosophical Register; such an Undertaking would have required a stationary Residence, which I could not conveniently submit to.

<sup>\*\*\*</sup> The Columns of Mild, or Hot, denote the number of Mild Days in Winter, and Hot in Summer.

REGISTER of the WINDS, for the YEAR 1785.

N. W.	5	11	10	91	6	3	3	13	4	6	10	5	98
S. W.	9	3	0	က	4	7	7	4	11	7	7	· co	62
S. E.	11	7	0	5	∞	11	5	3	7	1	67	6	59
N. E.	က	9	20	5	1	7	60	3	1	2	1	00	09
South.	4	1	0	0	0	0	0	0	0	0	0	0	5
North.	0	1	1	0	0	0	0	0	0	0	0	67	4
West.	2	1	0	0	6	2	13	∞	12	111	6	4	71
Eaft.	0	3	0	1	0	0	0	0	0	1	1	0	9
Months.	January	February	March	April	May	June	July	August	September	October	November	December	Total.

REGISTER of the WEATHER for the YEAR 1785.

)

-		_	_	-	_								-
Thunder.	0	0	0	0	1	Н	01	=	01	н	0	0	00
Mild or Hot.	0	0	0	T	01	15	ಣ	0	0	က	H	0	10 T
Fair.	12	15	22	24	22	25	17	1,5	15	17	18	16	210
Rain.	13	4	0	4	0	70	14	16	15	75	6	11	112
Snow.	9	6	000	C3	0	0	0	0	0	61	CC.	4	134
Froft.	7	22	22	5	O	0	0	Ö	90	000	120	11	87
Months.	January	February	March	April	May	June	July	August	September	October	November	December	TOTAL.

February the 18th, Thermometer 24.° June 24th, I hermometer, 80.°

REGISTER of the WINDS for the YEAR 1786.

N. W.	04040-1044400	44
S. W.	1 0 0 0 0 0 4 F 0 H = 0 0	40
S. E.	00 11 11 10 10 11 10 10 10 10 10 10 10 1	37
N. E.	1 40 50 50 50 60 60	46
South.	000 000 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	19
North.	40 80 0 × 51 × 50 5	34
Welt.	011 7 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	108
East.	0 1 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	37
Months.	January February March April May June July Auguft September October November December	TOTAL.

REGISTER of the WEATHER for the YEAR 1786.

-	-	-	-	_			_	_		_	_	THE OWNER WHEN	
Thunder.	0	0	0	0	0	C)			0	0	0	0	75.
Mild or Hot.	0	<b>  </b>	0	, ca	9	$\infty$	4	1-4	0	3	0	0	25
Fair.	10	H	91	22	2	23	23	13	15	21	15	16	203
Rain.	9	2	7	3	12	7	$\infty$	18	15	10	10	10	1:1
Snow.	5	ന	$\infty$	4	0	0	0	0	0	0	6)	5	27
Froft.	10	6	17	. 61	-	0	0	0	9	4	4	15	89
Months.	January	February	March	April	May	June	July	Auguft	September	October	November	December	TO FAL.

January the 3d, Thermometer 25.º June 4th, Thermometer 79.2

REGISTER of the WINDS for the YEAR 1787.

N. W.	0-909617997	19
S. W.	801 70 74 H 11 8 8 7 0 1	7.2
S. E.	040 4 5 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	44
N. E.	- 0 - 0 4 4 4 40 W 1 0 H	39
South.	004000100000	1 1
North.	000000000000000000000000000000000000000	12
West.	8 2 1 0 2 2 4 4 6 2 2	104
East.	4-995960-800	22
Months.	February March April May June July Auguft September October November	TOTAL.

REGISTER of the WEATHER for the YEAR 1787.

Months.	Froft.	Snow.	Rain.	Fair.	Mi'd or Hot.	Thunder.
January	12	က	5	23	0	0
February	က	0	11	17	9	0
March	က	1	6	21	6	0
April	67	1	6	20	0	0
May	0	0		24	10	H
June	0	0	11	61	01	61
July	0	0	22	6.	20	က
August	0	0	7	24	9	<b>i</b>
September	7	0	10	20	0	0
October	00	0	20	II	c)	0
November	77	0	$\infty$	22	72	0
December	6	7	13	14	်ရာ	0
TOTAL.	48	6	132	224	40	1

January 26, I hermometer 28.2 July 5, Thermometer 79.2

REGISTER of the WINDS for the YEAR 1788.

	1	1
N. W.	0 10 40 8 10 6 4 4 6 8 3	71
S. W.	100 100 100 100 100 100 100 100 100 100	55
S. E.	10 D 0 0 0 0 0 0 0 0 1	50
N. E.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	48
South.	0000HQQHQQQD	91
North.	<b>си и о о с о о о и и с</b>	22
Weft.	00 a 7 1 4 0 0 1 1 0 cc	94
East.	1 4× 1 4 40 0 0 4 00 1	30
Months.	January February March April May June July Auguft September October November December	TOTAL.

## REGISTER of the WEATHER for the YEAR 1788.

Thunder.	0	0	0	0	<b>H</b>	0	<u>ග</u>	I	61	0	0	0	7
Mild or Hot.	7	0	က	ಣ	5	21	63	<u>ග</u>	63	က	10	H	36
Fair.	19	12	0 I	15	24	20	12	17	13	25	27	91	2 18
Rain.	II	12	∞	13	7	01	19	14	17	9	63	3	122
Snow.	I	5	5	7	0	0	0	0	0	0	I	12	97
Froft.	6	20	11	0	0	9	0	0	-	∞	6	2	7.2
Months.	anuary	February	A arch	April	May	Inne	July	August	September	October	November	December	TOTAL.

January the 14th, Thermometer 29°. August the 3d, Thermometer 792.

REGISTER of the WINDS, for the YEAR 1789.

W.	a w v v 4 v 4 v 0 w 0 v	51
3		10
S. W.	13 0 0 8 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	107
S. E.	2014087072101	55
N. E.	4 100 10 4 H 10 10 0	31
South.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	. 17
North.	000000000000	7
West.	0 0 2 4 0 4 4 4 4 7 7 7	29
East.	201014911920	30
Months.	January Irebruary March April May June July Auguft September October November December	Total.

REGISTER of the WEATHER for the YEAR 1789.

							-						
Thunder.	0	0	0	0	0	4	4	0	Н	0	0	0	6
Mild or Hot	3	H	0	П	က်	23		9	0	0	0	$\infty$	25
Fair.	15	9	14	18	16	11	7	20	1.2	11	14	20	164
Rain.	01	21	5	1-	15	19	24	11	18	20	16	10	180
Frost. Snow.	9	-	12	1	0	0	0	0	0	0	0	I	21
Froft.	15	) OC	91	4	0	0	0	0	67	01	7	2	52
Months.	January	February	March '	April	May	Tune	July	August	September	October	November	December	TOTAL.

January the 5th, Thermometer 20.0 August 11th, Ihermometer, 80.0

REGISTER of the WINDS for the YEAR 1790.

N. W.	0 00 10 00 00 00 00 00 00 00 00 00 00 00	49
S. W.	c c c 1	72,
S. E.	000477301704	54
N. E.	1 1 0 4 70 0 1 0 0 0 0 0 4	47
South.	0000==0000=0	14
North.	00 4 8 0 0 0 0 8 4 0 0	9
West.		94
East.	00 00 00 00 10 11 0	29
Months.	January February March April May June July Auguft September October November	TOTAL.

### REGISTER of the WEATHER for the YEAR 1790.

0000000000	$\infty$
vo vo a a o a o a o a o a o a o a o a o	30
1200111122211	220
27408 701 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	138
н 0 0 0 0 0 0 0 н го	7
0 to	47
January February March April May June July Auguft September October November	TOTAL.
	10 1 9 21 10 23 10 25 30 10 25 30 10 10 10 10 10 10 10 10 10 10 10 10 10

January the 20th, Thermometer 28.9 August 20th, Thermometer 80.2

REGISTER of the WINDS for the YEAR 1791.

N. W.	80 + 0 + 0 € 10 € 10 € 10 € 10 € 10 € 10	58
S. W.	wo 40 + 20 0 0 0 8 W V	95
S. E.	0 H 8 0 10 0 0 0 0 10 11	39
N. E.	- 4 0 4 7 0 6 + 4 7 0	34
South.	сноноочин 44ъ	23
North.	0 V 70 0 H 0 0 0 H 0 0 0 V	91
Weß.	270478889985	69
East.	0 W 4 W 0 W 4 H 4 0	31
Months.	January February March April May June July Auguft September October November	TOTAL.

## REGISTER of the WEATHER for the YEAR 1791.

Frost.   Snow.   Rain.   8   2   17
က
0 12
0 11
0 7
0 19
0 13
0
0 17
91 0
13 138

June 7th, I hermometer 76.2 December 11, Thermometer 19.2

REGISTER of the WINDS for the YEAR 1792.

N.W.	1 4 H CO C C C C T C C C C C C C C C C C C C	69
E. S. W.	200000 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	136
S. E.	0 1 0 0 0 0 0 0 1 0 0 0	24
N. E.	0 00 00 00 00 00 00 00 00 00 00 00 00 0	37
South.	40 000 00 400 440	45
North.	о н о н о о о о в о н о	00
Weft.	4000004000-04	38
East.	H O O H O O 8 40 H O O	6
Months.	January February March April May June July Auguft September October November December	TOTAL.

### REGISTER of the WEATHER for the YEAR 1792.

1							-		-	-			-
Thunder.	0	0	H	1	က	<b>-</b>	0	0	61	0	0	0	00
Mild or Hot.	<u></u>	$\infty$	<b>H</b>	9	0	0	0	4	0	4	01	<b>C3</b>	30
Fair.	21	18	12	∞ <sub>I</sub>	91	0	17	19	$\infty$	11	19	15	183
Rain.	$\infty$	7	15	12	15	21	14	12	22	20	II	13	170
Snow.	2	4	4	0	0	0	0	0	0	0	0	00	13
Frost.	11	$\infty$	∞ -	I	90	)	61	0	<b>—</b>	00	15	OI	53
Months.	January	February	March	April	May	Inne	July	August	September	October	November	December	TOTAL.

February the 21st, Thermometer 23°. August the 22d, Thermometer 762.

REGISTER of the WINDS, for the YEAR 1793.

N.W.	9	6	63	. 5	17	12	10	2	10	4	7	9	93
S. W.	13	91	12	7	63	13	15	17	11	18	11	19	154
S. E.	က	0	9	9	1	0	0	က	07	7	-	7	21
N. E.	01	-	4	9	7	-	က	7~4	5	0	5	, 14	36
South.	0	0	-	H	-	0	н	က	0	67	4	01	15
North.	-	0	භ	5	0	0	=	0	0	0	-	0	11
West.	9	63	5	0	က	4	<b>H</b> ,	<b>C</b> 1	77	9		67	34
East.	0	0	1	0	0	0	0	0	0	0	0	0	1
Months.	January	February	March	April	May	June	July	August	September	October	November	December	Total.

# REGISTER of the WEATHER for the YEAR 1793.

July 10th, Thermometer, 82. January the 19th, Thermometer 32.º

REGISTER of the WINDS for the YEAR 1794.

Months.	East.	West.	North.	North.   South.	N. E.	S. E.	S. W.	N.W.
January	0	9	0	0	0	0 -	22	00
February	0	9	<b></b>	72	н	0	15	000
March	0	က	5	-	0	Н	19	001
April	0	7	0	0	0	67	101	5
May	0	0	0	0	9	0	13	12
June	0	0	-	Н	63	9	10	10
July	0	0	0	0	7	01	22	2
August	0	63	0	7	0	0	12	91
September	0	0	0	-	7	=	13	∞
October	0	3	0	0	0	0	20	$\infty$
November	0	0	0	61	0	5	91	7
December	0	1	0	3	77	4	15	9
TOTAL.	0	23	7	11	20	21	198	85

# REGISTER of the WEATHER for the YEAR 1794.

		-				The state of the s
Months.	Frost.	Snow.	Rain.	Fair.	Mild or Hot	Thunder.
January	1.9	2	1	28	9	0
February	0	0	13	15	10	0
March	4	0	11	20	9	0
April	0	0	10	20	00	***
May	0	0	12	19	) Q1	<b>~</b>
June	က	0	4	26	2	
July	0	0	6	22	5.	1
August	0	0	, cc	100	0	or;
September	က	0	14	91	0	00
October	7.	0	20	13	0	0
November	000	0	0	20	0	0
December	16	OI.	10	19	0	0
TOTAL.	53	4	125	236	37	7

January 3, Thermom. 28.º July 13, Thermom. 84.º. August 21, Remarble Esfects of Light-ning, see Page 28. October 21st. a Singular Meteor, see Page 30.

A SYNOPSES of the TEN YEARS REGISTERS.

N. W.	8 4 4 5 7 4 4 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	682
S. W.	622 722 722 723 953 136 136	991
S. E.	250 244 257 250 250 251 251	383
N. E.	09 4 8 4 8 8 8 8 8 9 8 9 9 9 9 9 9 9 9 9	395
South.	10 11 10 11 14 12 13 11 11	176
North.	4 4 2 2 7 0 0 0 1 1 7	127
West.	1,00 4,00 4,00 4,00 4,00 6,00 8,00 8,00 8,00 8,00 8,00 8,00 8	702
East.	0 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	195
Years.	1785 1786 1786 1787 1790 1791 1792 1793	TOTAL.

,		
Thunder.	∞ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	70
Mild or Hot.	24 4 82 4 82 82 82 82 82 82 82 82 82 82 82 82 82	329
Fair.	22 23 24 24 25 25 25 25 25 25 25 25 25 25 25 25 25	2110
Rain.	1112 138 138 123 123 123 123	1351
Frost.   Snow.	25 20 20 20 21 21 21 21 21	166
Frost.	65 63 63 63 63 63 63 63 63	602
Years.	1785 1786 1787 1789 1790 1791 1793	TOTAL.

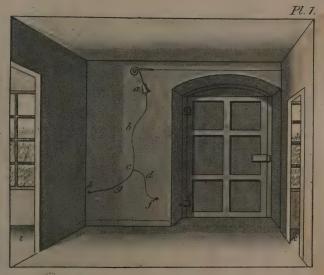
### THE EFFECTS

OF A

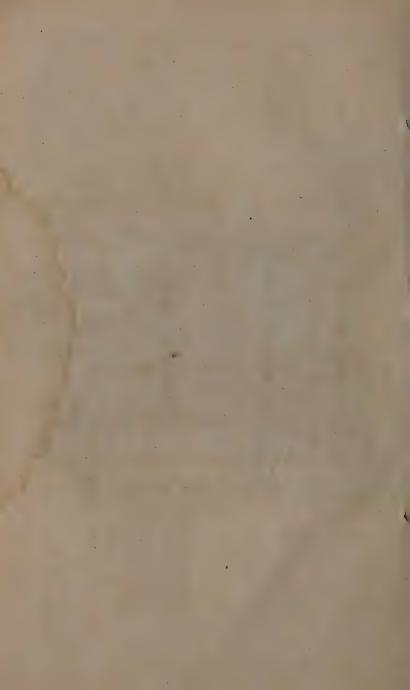
### THUNDER STORM,

ON THURSDAY, THE TWENTY-FIRST OF AUGUST, 1794.

ABOUT two o'Clock, P. M. two very black Clouds were seen towards the South West, which, in their North East course, appeared to attract each other; this attractive power in these Clouds, was occasioned by their being highly charged with a contrary Electricity, which burst out with a violent explosion, as soon as the Clouds came in contact; the vivid flashes of Lightning followed each other in a quick succession, amidst a torrent of Rain and Hail; at that instant, a Ball of Fire was seen to strike the top of a Chimney, in Mr. Wragge's House, near Mansfield, where it was attracted by an Iron Cramp, from whence it descended to the roof, throwing down part of the Chimney, and scattering the Stones to a considerable distance. The Lightning, after running nine Yards along the Roof, penetrated the Ceiling of a Garret, where it tore off a piece about seven Feet in length, and near six Inches in width; it was here attracted by another Iron Cramp, in a sloping Beam, from which it separated a piece of near three Feet in length, and about eleven Inches in circumference; from this Beam it forced its way



The Passage in M. Wragges House.



through the Floor, to a gilt Frame of a Looking-Glass, in the Drawing-room, where it burst open a Tea-chest, melted a piece of Lead within side, about the size of Half-a-Crown, and scattered a pack of Cards to the other end of the Room; a stream of the Electric Fluid appeared by a black line on the Floor to have run ten Feet to an Iron Fender. The Lightning then took its course downwards to the Parlour, where it run round another gilt Frame of a Looking-glass, near to which Mrs. Wragge was sitting, with a Child in her lap, they both received a strong shock, which, in all probability would have been fatal to them, had not a Bell-wire, that was over the Glass, conducted the Electric Fluid to the Bell, in the Passage; its course from thence, is very extraordinary, and will be best explained by referring to the PLATE 1st. where (a) is the Bell, in the Passage, from whence the Electric Fluid (b) descended on the Wall in a narrow stream to (c) where it divided into two, that at (d) was attracted by the Iron Hinge (e) of the street Door, and split the Wood to which the Hinge was nailed, the Passage of the Electric Fluid to the Hinge, was through a Stone Wall eleven Inches thick, and the aperture it made was so small, that it would hardly admit a knitting Needle, see the Hole at (f) the other stream (g) was attracted through the Wall (h) by an Iron Bar in the Kitchen (i) where it spent its force, without doing any damage, (k)the Parlour.

The Wind was that Day, N. W. the Barometer 29. 8. Thermometer 66°.

The strong attractive power of these Conductors, shew the great utility of Iron Conductors in preserving Buildings from the dreadful effects of Lightning.

### AURORA BOREALIS.

About 8 o'Clock, on Thursday Night, the 21st of October, 1794, a remarkable Aurora Borealis was seen near Mansfield; its appearance was that of a white steady light, without any of those shooting streams of the Electric Fluid, which are always seen in the common Aurora Borealis; it seemed to extend from N. E. to S. W. and where it was observed from a high situation, it formed a segment of a large circle, see PLATE 2nd. There had been a little Frost in the Morning, the Day was fine, and the Evening perfectly clear.

The Wind, N. W. Barometer 30, Thermometer 47.



. Appearance of the Meter as seen from a field behind W. Rookes Hinse.



### RULES

## For Judging the Weather,

BY THE

### RISE AND FALL OF THE BAROMETER.

#### BY MR PATRICK.

THE rising of the Mercury presages in general Fine Weather; and its falling, Foul, as Rain, Snow, high Winds and Storms.

- 2. In very Hot Weather, especially if the Wind be South, the falling indicates Thunder.
- 3. In Winter, the rising protends Frost; and in Frosty Weather, if it falls three or four tenths, there will certainly follow a Thaw; but if it rises in a continued Frost, Snow generally succeeds.
- 4. When Foul Weather happens soon after the Mercury has fallen, expect but little of it; and, on the contrary, expect but little Fine Weather, if it proves Fair very soon after the Mercury has risen.
- 5. In Foul Weather, when the Mercury rises much, and high, and so continues for two or three Days, before the Foul Weather is quite over, then expect a continuance of Fair Weather to follow.

- 6. In fair Weather, when the Mercury falls much and low, and thus continues for two or three Days before the Rain comes, then expect a great deal of Rain, and probably high Winds.
- 7. The unsettled motion of the Mercury denotes uncertain and changeable Weather.
- 8. You are not to be governed absolutely by the Words engraved on the scale of the Barometer, (altho' in general the Weather will nearly agree with them,) as to the rising and falling of the Mercury; for if it stands at much Rain, and then rises to changeable, it presages Fair Weather, but not of so long continuance as it would have been if the Mercury was higher; and, on the contrary, if the Mercury stood at Fair, and falls to Changeable, it presages Foul Weather, but not so much of it as if it had fallen lower.

From these Observations, it appears, that it is not so much the height of the Mercury that indicates the Weather; as its motion up and down; and for this reason it is necessary to know at any time whether the Mercury is rising or falling, in order to judge, with some degree of probability, what Weather may be expected; for which purpose, the following Rulls will be found useful:—

1. If the surface of the Mercury be convex, rising higher in the center of the Tube than at the sides, it is generally a proof that it is then

then rising, and presages the approach of Fair Weather.

- 2. If the surface of the Mercury is lower in the center than at the sides, it is falling, and indicates Foul Weather.
- 3. If it is level, or very little convex, it is stationary, and presages a continuance of the then state of the Weather.
- 4. But to judge still more precisely of its inclination either to rise or fall, it may not be amiss to strike the Frame gently, so as to affect the Mercury in the Tube, and it will immediately rise or fall about a twentieth of an Inch, which-ever way it inclines, unless it is then stationary, in which case it will not be perceptibly affected."

DOCTOR HALLEY observes, That during great Winds, though unattended with Rain, the Mercury is lowest of all, with regard however to the point of the Compass from whence the Wind blows, as the greatest rise of the Mercury is on Fasterly and North Easterly Winds, and the greatest fall on Southerly and Westerly Winds.

That after great storms of Wind, when the Mercury has been very low, it generally rises again very fast. He once observed it rise an Inch-and-a-half in less than 6 Hours, after a long continued storm of South West Wind.

That

That in calm, Frosty Weather, the Mercury generally stands high.

DOCTOR BEAL observes, That the Mercury is higher in cold Weather than warm; and generally higher in the Morning and Evening, than at Noon.

That in settled Fair Weather, it is higher than either before, after, or during Rain; that it generally descends lower after Rain than it was before it; that if it rises higher after Rain it is generally followed by a settled serenity.

That there are frequently great changes in the Air, without any perceptible alteration in the Barometer.

The following Observations may not be unworthy of attention:—

"A continuance of Fair Weather, the Wind being in the North, and the Mercury high, or rising, is never succeeded by Rain, 'till the Wind changes to some Southerly point; and a continuance of Rain from the South is scarcely ever succeeded by fair settled Weather, before the Wind changes to the West, or some Northerly point.

The falling of the Mercury, when the Wind is full South, scarcely ever fails to presage Rain.

On the approach of cold, frosty, or foggy Weather, it rises pretty high; but on the approach of Windy or tempestuous Weather it

will sink very low; and, as soon as the storm is over, will rise again briskly, as has been remarked above, by Dr. HALLEY. About the time of the Equinoxes, viz. March, and September, if the Mercury is about 29 Inches, or Rain, though it should not then Rain, this state of the Barometer threatens much Rainy Weather till the next Equinox; and vice versa if about 30, or Fair, though it should Rain, it promises a greater proportion of fine Weather." (1)

Prognostic Signs of the Weather, from the Winds.

AMONG the causes which affect the Weather, there is none whose influence is more demonstrable than that of the Winds; these, though uncertain in appearance, are, like all other Phenomena of Nature, governed by fixed and determinate laws, and deserve a most serious investigation. When the Wind veers about uncertainly to several points of the Compass, Rain generally follows. By some it has been asserted, that if the Wind, in veering about follows the course of the Sun from East to West, it brings Fair Weather. but if it is from West to East, Foul.

A whistling, howling Wind, is almost an infallible sign of Rain; it is a sign that does not seem to be confined to any Climate; for in the Sacred History, we find Elijah saying, "Get thee up, eat and drink, for there is a sound of abundance of Rain."

"Living Vegetables have a considerable effect in altering Climates, and affecting the Weather, wooded Countries are much colder than those that are open and cultivated; thus part of Guiana has only been cleared from wood since the beginning of this Century, and the heat in that part is already excessive; whereas, in the wooded parts, the Inhabitants are obliged to light a Fire every night.

Sir Wm. YOUNG gives a remarkable instance of the effect of Hills in arresting Vapours, and producing Rain, while the exhalations from the Trees on its surface, cool and temper the air; observing, that the smooth polished Barbadoes, and our Leeward Islands are parched up, whilst the towering and rugged Dominica, St. Vincent, Grenada, and Tobago, enjoy incessant Rains, and delicious verdure.

"It is generally agreed that the clearing away of wood in time, lessens the Vapours, and consequently the Rain of a Country. Several fine Parishes in Jamaica, which used to produce large crops of Sugar Canes, and were once the richest spots in the Island, are now dry for 9 Months in the Year, and are turned

into Cattle Pens, through the clearing away of the neighbouring woods." (1)

The following Observations on the same subject were communicated to Mr. ADAMS, by a very ingenious Friend:—

"Water is very plentiful in those Countries where Woods and Forests abound, and the purest Springs are generally found beneath the friendly shelter of a Grove.

The natural History of every Country shews, that in proportion as the wood-lands are cleared, the water-courses diminish. In America, unfortunately for the Inhabitants, this truth is too well known; for since the woods in the vicinity of their. Towns have been cut down, many long established Mill races have become dry, and others have been reduced so low as to cause very great interruptions to the Miller, who must wait a confiderable time for the Dams to fill between every hour's work.

Hence we may learn the important necessity of preserving the Trees from beneath whose humid shades a water spring discharges its streams; and hence too we may learn, that the smallest springs may be improved by planting around them a grove of Trees, particularly the Oak, so highly valued by the Greeks, the Romans, and our ancient Druids, who, considering the health of man, and the fertility

<sup>(1)</sup> Adams Differtation on the Barometer, page 47.

fertility of the soil to be absolutely dependent upon plentious streams of Water, consecrated their groves to preserve their springs.

It were much to be wished that some expedient could now be formed to answer the same valuable purpose.

Of situations, perhaps the most promising for the enjoyment of health, life, and every convenience, is near the bottom of an high Hill, that has a Southerly aspect, with Woods and Plantations about the head of it; a dry soil of Sand or Gravel, with a mixture of loam and running Waters, with green Meadows before it, or the Sea, with a steep and clear shore of Gravel, or Beach. There may health fix her seat; but let no man think his situation will preserve him, unless he has the prudence to preserve himself. All the varieties of the Weather, all the Seasons, and all the Elements are at War with the indolent and the intemperate." (1)

The learned Mr. KIRMAN, F. R. S. observes, that with respect to the annual temperature, we may remark,

First, "That within 10 Degrees of the Poles, the temperatures differ very little; neither do they differ much within 10 Degrees of the Equator.

Secondly, The temperature of different Years

<sup>(1)</sup> Adams Dissertation, page 49.

Years differ very little near the Equator, but they differ more and more as the latitudes approach the Poles.

Thirdly, It scarce ever freezes in Latitudes under 35° unless in very elevated situations, and it scarce ever hails, in Latitudes higher than 60°.

Fourthly, Between Latitudes 35° and 60° in places adjacent to the Sea, it generally Thaws when the Sun's altitude is 40° and seldom begins to Freeze, until the Sun's meridian altitude is below 40°."

When the variation of the Magnetic Needle was first discovered, it was to the East of the meridian of London. It has been since that time continually advancing to the West, so that in the Year 1657, the Magnetic Needle pointed due North and South, and at present its variation is about 22°. West.\*

Dr. HALLY observes, that the whole period of variation is performed in about 700 Years. The variation is about 9 Minutes in a Year.

Declination -

See Cavallo's ingenious Treatife on Magnetifin, and from which the following Table is taken:—

Declination of the Magnetic Needle, observed in London.

Years.	Declination.
,	Degrees. Minutes.
1576	11 - 15
1580	11 - 11
1612	6 - 10 7
1622	$\begin{bmatrix} 6 & - & 6 \\ - & 6 \end{bmatrix} > East.$
1633	4 , 5
1034	4 - 5 ]
1057	0 7
1005	1 $-22\frac{1}{2}$
1666	$\frac{1}{35^{\frac{1}{2}}}$
1672	2 30
1683	4 — 30
1692	6 - 0
1700	8 7 - 8 7 6 8
1717	10 — 42
1724	11 — 45
1725	T1 — 56
1730	13 - 0
1735	14 — 16 15 — 40 West.
1740	10
1745	16 - 53
1750	<del>- 17 - 54   </del>
1760	19 — 12
1765	20 — 0
1770	20 — 35
1774	21 — 3
1775	21 — 30
1777	22 — 12
1778	$\frac{22}{2} - \frac{20\frac{1}{4}}{20\frac{1}{4}}$
1779	$22 - 29\frac{1}{2}$
1780	22 — 41

The 4 last Years are taken from the Philosophical Transactions.

It appears by the Register of the Winds, for the last 10 Years, there has been in that time, 1693 Days of West and South West Winds, and 590 of East and North East.

The influence of Winds over Animal and Vegetable Life, is undoubtedly very great; and we feel, with a pleasing sensation, the salubrious West and South West, whilst the noxious East and North East Winds bring pestilential Disorders and Blights. Hence we see the goodness of Providence in thus giving us so large a portion of those Winds, which tend to the preservation and comforts of Life.

FINIS.



### CONTINUATION

OF THE

### METEOROLOGICAL REGISTER,

KEPT AT

MANSFIELD WOODHOUSE,

FROM THE YEAR,

1794,

TO THE END OF THE YEAR,

1795,

By H. R.

NOTTINGHAM,

PRINTED BY SAMUEL TEPMAN, OPPOSITE THE WHITE LION, AND BLACK-MOOR'S-HEAD INMS.

REGISTER of the WEATHER for the VEAR 1795.

Months.	Frog.	Snow. Rain.	Rain.	Farr.	Farr. Mild or Hot.	Thunder.
January	97	12		17	21	0
February	15	7	600	18	61	0
March	2	7	$\infty$	91	1	-
April	0	0	17	13	64	1
May	-	0	6	22	9	0
June	01	0	15	13	0	က
July	-	0	13	2	0	1
August	0	0	11	20	0	4
September	4	0	00	27	9	0
October	=	0	100	130	4	
November	· (6:	. 67	10	20:	0	0
December	N	0	12	19	0	0
TOTAL.	99	2,8	119	2.4	20	11

The greateft Rife and Fall of the BAROMETER in the Year 1795.

_	
Fall.	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
Month.	
Days of the Month.	001 1001 1001 1001 1001 1001 1001 1001
Rife.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Month.	
Days of the Month.	000 4 1 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Months.	January February March May June July Auguft September October November

The greatest Rife and Fall of FAHRENIT'S THERMOMETER in the Year 1795.

Months.	Days of the Month.	Rife.	Days of the Month.	Fall.
Tanuary	.5	400	29	120
February	11	44	21	24
March	29	50	1	30
April.	22.2	57	တ	38
May	23	76	27	44
Tune	26	99	20	47
Tuly	20	70	6	40
August	16	70	202	57
September	7	74	200	54
October	14	64	7	44
November	67	53	20	27
December	9	54	10	38

### OBSERVATIONS ON THE WEATHER.

As the commencement of the Year 1795, was remarkable for intenseness of cold, which appeared by various accounts, to have been more severe than it was ever known to be, in this climate; I have given in the following Table, the Days in the Month of January and February, when the Thermometer was below the Freezing Point, shewing the number of Degrees.

N. B. The Thermometer was placed out of doors facing the N. every morning, between nine and ten o'Clock.

# Excess of Cold in January and February, 1795.

Days	State	Degrees	Days	State	Degrees
in	of the	below	in	of the	below
fan.	Ther.	the f. p.	Feb.	Ther.	the f. p.
1	27°	5°.	3	290	3°.
2	25	7	-4	28	4
3	25	7	5	28	4
4	24=	기 기를 기하다.	17	29 /	3
10	31 3	ÇER <b>I</b> ÇIDE .	81:	.28	4
II	24	8	19	26	6
12	23=	8 1 2	20	26.	6
14	28	135 4 mg 87	21	24	.8
16	28	4	22	30	2
17	28	4	28	30	2
18	31	I			
. 19	23	9			•
20	23	9			
21	23	9			· .
22	. 24	. 8	1		
23	23-1	81/2			
24	21 %	II			
25	211	101			
26	22	10			
29.	12	20			
30	14).	18			
31	22	.10			

It appeared by meredian observations, that the two hottest days in the year 1795, were on the 21st and 23d of May, when the Thermometer was at 75 Degrees Summer heat.

The sudden transition from heat to cold in that month is very remarkable, as will appear in the following Table.

Days in May.	Baro- meter.	Ther- mom.	Wind.
23 24	29 9	76°	S. W. N. E.
26 27	30 <b>-0</b> 30-1	5° 44	N. E. N. W.

Hence we find that the Temperature of the Air on the 24th was 21 Degrees colder than on the 23d, and on the 27th 6 Degrees colder than on the 26th.

On the 19th of March, at about a quarter before twelve at night, a remarkable Meteor was seen over Mansfield; its first appearance was that of a Ball of Fire, which in three or four seconds burst into two, and strongly illumined the atmosphere, its course was from N. W. to S. E. Barometer 29-8, Thermometer 38°.

On the 18th of November, about ten minutes

nutes after 11 o'clock at night, a very smart shock of an Earthquake was felt in the neighbourhood of Mansfield, and which extended, in different directions, to above sixty miles; its duration was about eight or ten seconds, including the preceeding noise, which rather resembled the explosion of confined air than that of thunder; whence it seems probable, that the violent concussion might have been occasioned by a discharge of a great quantity of the electric fluid, collected in the lower atmosphere; the wind was very high in the morning, and the clouds black and heavy, but about one o'clock the wind had entirely dispersed the clouds, and the evening was perfectly calm and clear; this circumstance, together with the account given by some travellers in the Mail Coach, that they saw a strong light before they heard the noise, seem to favour the above conjecture. The concussion was so great in some places, that several chimnies were thrown down, and the bells, in many of the church steeples, were heard to sound. The Wind was that night S. W. Barometer 28-8, Thermometer, 50%.

--- II

# Prognostic Signs of the Weather.

THE learned Mr. Kirwan, F. R. S. has deduced from a variety of Meteorological Observations, made in England, between the Years 1677 and 1789, the following probabilities or hints towards forming prognostics of the Weather.

- 1. That when there has been no storm before and after the Spring Equinox, the ensuing Summer is generally dry, at least five times in six.
- 2. That when a storm happens from any Easterly point, either on the 19th, 20th, or 21st of March, the succeeding Summer is generally dry, four times in five.
- 3. That when a storm arises on the 25th, 26th, or 27th of March, and not before, in any point, the succeeding Summer is generally dry, four times in five.
- 4. If there be a storm at S. W. or at W. S. W. on the 19th, 20th, or 22d, the succeeding Summer is generally wet five times in six.

## From the Face of the Sky.

The colour of the Sky is an index to the Weather, because it shews the state of the vapours which reside in the atmosphere.

If the red vapours of the Evening are precipitated, the morning sky is clear; but if they remain in the air, the morning is red and rain is in general the consequence.

If a low'ring redness spreads far upward from the horizen, either in the morning or the evening, it is succeeded either by rain or wind,

frequently by both.

If such a fiery redness extends towards the zenith in an evening, the Wind will be high from the West, or South West, attended with rain, and sometimes succeeded by a flood.

When the sky in a rainy season is tinged with a sea-green colour near the horizon, when it ought to be blue, the rain will continue and increase.

If it be of a deep dead blue, it will be show'ry.

The lostiness of the canopy is perhaps one of the truest prognostics of fine weather. (a)

Several stormy days and nights occurred in October, November, and December, of 1795, with the Wind at S. W. by which much mischief was done at Sea.

#### FINIS.

(e) Adams's Desert. on the Barom. and Therm. P. 37.

N. B. In l. 2. p. 15, for 15 read 10.

### CONTINUATION

OF THE

#### ANNUAL

# Meteorological Register,

KEPT AT

MANSFIELD WOODHOUSE,

FROM THE YEAR

**1**795.

TO THE END OF THE YEAR

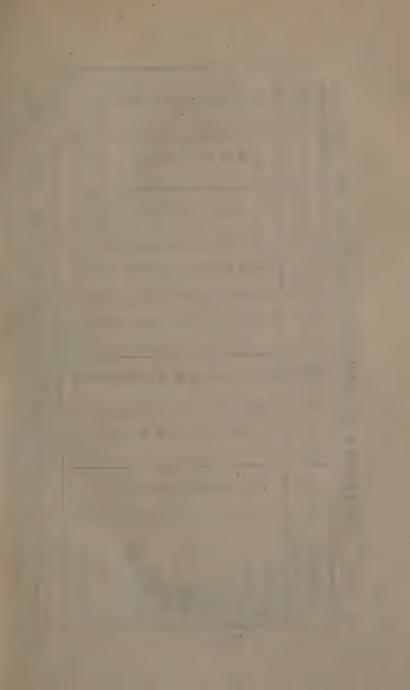
1796.

By H. R.

NOTTINGHAM.

PRINTED BY SAMUEL TUPMAN, OPPOSITE THE INNS.





RFGISTER of the WINDS for the YEAR 1796.

N. 14.	0 4 7 7 2 2 2 7 2 2 2 1 0	82
S. W.	200 × 11 48 0 11 0 0 0 7	138
S. E	a ∞ ∞ ≈ ≈ 0 0 4 ± 0 0 4	30
N. E.	0 72 7 7 7 1 1 70 40 9	59
South.	0 0 0 0 0 0 0 0 0 0 0 0	6
North	0 - 0 - 0 0 0 0 0 0 4 0	91
H ch.	010111111111111111111111111111111111111	27
Eaft.	0000-00-000	5
Months.	January February March April May June July August September October November December	TOTAL.

REGISTER of the WEATHER for the YEAR 1796.

I hunder.	20042404000	10
Mild or Hot.	11 20000001	43
Fair.	22 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	230
Rain.	858 4 0 0 0 0 8 7 7 0 0 7	129
Snow.	0 1 4000000011	7
Froft.	1337 2000 213 62	51
Months.	January February March April May June July August September October November December	TOTAL.

The Greatest RISE and FALL of the BAROMETER in the YEAR 1796.

Months	Days of the Mon. Rife.	Rife.	Days of the Mon.	Fall.
January	17	29,0	27	28,7
February	25	30,1	9	28,7
March	22	30,1	30	29,3
April	56	30,1	30	28,0
May	17	29,9	30	28,5
June	30	30,	က	29,3
July	100	29,6	9	29,1
August	91	30,1	I	29,4
September	30	30,1	20.	29,3
October	26	30,4	. 7	28,0
November	26	30,1	17	28,9
December	01	30,2	19	29,

The Greateft RISE and FALL of Fahrenheift's THERMOMETER in the YEAR 1796.

Months.	Days of the Mon.	Rife.	Days of the Mon.   Fall.	Fall.
January	14	54	30	22
February	61	525	CI.	33
March	17	55	20	32
April	200	02	6	44
Time	25.	20	3	45
June	20	7.5	21	53
July	14	99	27	57
Augult	22	74	35	54
September	15	89	30	21
October	20	56	25	37
November	n	5.4	0	27
December	30	49	25	16

### OBSERVATIONS on the WEATHER.

HE Changes in the Atmosphere of this Island being more frequent than in the Southern, or even the more Northern Latitudes, I have set down in the following Table, the sudden transitions in the Temperature of the Air as they occurred in the Year 1796.

The first Column No. 1. is for the Months, No. 2. the Days of the Month, 3. State of the Thermometer, 4. Change from Cold to Heat, 5. from Heat to Cold, 6. Wind.

So that it will appear that on February 11, the Thermometer was at 35°, Wind at West, and on the 12th the Thermometer was up at 50°, which shews that the Air was 15° warmer than on the 11th, as noted in Column No. 4. Wind S. W. It will be seen that these Changes have happened within 24 hours.

1	2	3	4	5 1	U
Months	Days.	of the		Change f. Heat to Cold.	Wind.
Feb. Feb. Heb. Mar. Mar. Mar. Mar. Mar. Mar. Mar. Mar	11 12 13 9 10 11 12 18 19 24 25 26 27 4 526 27 8 9 23 24 4 5 5 25 26	35 50 33 34 45 37 44 52 40 46 34 48 33 62 51 49 60 45 58 51 64 54 75,61	15 11 7 14 11 13 13	17 8 12 12 15	West S. W West East East North N. W. W. W. W. W. S. E. S. W. N. F. W.
June	27	62	1	1 13	i vv eit

<sup>\*</sup> June 26 an extraordinary Variation of 14° from Heat to Cold in eight Hours; at 10 o'Clock in the Morning the Thermometer was at 75° at 6 in the Evening at 61°.

1	2	1 3	4	1 5	6
Months	Days,	of the	Change fr.Cold to Heat	f. Hear	Wind.
Aug. Aug. Oct. Oct. Nov. Nov. *Nov. Dec. Dec.	21 22 23 24 3 4 29 30 18	74 51 39 54 43 30,44 27 33 44	12	13 12 11	N. E. N. E. S. W. N. W. S. W. N. W. N. W. N. W. N. E. N. E.
Dec. Dec. Dec. Dec.	26 27 29 30	21 31 35 49	10		S. E. S. E. S. E. S. W.

<sup>\*</sup> An extraordinary Variation of 14° from Cold to Heat in four Hours; at 9 o'Clock the Thermometer was at 30°, at 1, it flood at 44°.

Excess of Cold in November and December, 1796, when the Thermometer was below the Freezing Point.

Days of the Mon.		Degrees below Freez. Point.	
Nov.29	30	2	N.W.
30	27	5. 5.	N. W.
Dec. 1	25	7	N. W.
2	25	7-	N.W.
3	31	i i i	S. W.
	25	7	West.
5 6	30	2	S. W.
6	28	4	N.W.
8	25	7	N.W.
9	30	2	N.W.
10	31	1	S. W.
21	28	4	S. W.
22	21	11	S. W.
23	26	6	North
24	20	12	N.W.
25	16	16	N.W.
26	21	11	S. E.
27	31	1	S. E.
28	30	2	S. E.

Mr. Van Swinden has observed that the greatest Cold, even that which exceeds o, of Pahrenheit, if its lasts only a few days, penetrates no deeper than 20 inches even when the Earth is not covered with Snow, and not above 10 inches where Snow lies on the surface; by which we learn the important purposes this covering answers in high Northern Latitudes.\*

The Weather in the Summer was cold and wet; the two hottest days were on the 26th of June and the 22d of August, when the Thermometer was only at 75 and 74°; the beginning of the Winter was remarkably mild.

It appears that we have, generally, more Frost and Snow in January, February, and March, than in October, November, and December, which will be seen in the following Table; where I have given the number of days of Frost and Snow in those months for the last 12 Years; commencing with the year 1785, and continued to the end of the year 1786. The 1st column Years, 2d Months, the 3d marked F. and S. shews the number of days of Frost and Snow in each month, the 4th total number of Days in the three months; then sollow the last three months marked as above.

<sup>\*</sup> Kirwan's Etti. of the Temp. of diff. Lat. p. 32.

13.	Nion	F. S.	Total.	Mon.	F. S.	Total.
	Jan. Feb. Mar	7-6 22-9 22 8	51-23	Oct. Nov Dec.	3- 2 12- 3 11- 4	26- 9
1786	Jan Feb. Mar.		36-16	O&. Nov Dec.	4- 0 4- 0 15- 5	23- 5
. 787	Jan. Feb. Mar.	3 0 3- 1	18- 4	G&, Nov Dec.		26- 4
	Jan. Feb. Mar.	9- 1 5- 5 11- 5	25-11	Oct. Nov Dec	8- 0 9- 1 26-12	43-13
		15- 6 3- 1 16-12		Nov Dec.	2- 0 5- 0 5- 0	12-0
1790	Feb.	8- c 5- c	- AT	J&t. Nov Dec.	4-0 /6- I 9-3	19- 4
1791	Jan. Feb. Mar.	10- 3	1.5	Nov	5- 0 5- 0 21- 8	31-8
1792			to Do	Nov	5-0	

2rs.	Mon.	F. S.	Total.	Mon.	F. S.	Total.
1793	Feb.	11- I 8- I 10- 2	29- 4	Nov	_	15- 0
1794		19- 2 0- 0 4- 0			5- 0 8- 0 16- 2	29- 2
1795		26-12 15- 7 5- 7	46-26	Det. Nov Dec.		12- 2
1796	Feb.	2- 0 6- 1 13- 4		Oct. Nov Dec.		25- 2

Hence it appears there have been in the last 12 years 80 days more of Frost, and 74 of Snow in January, February, and March, than in October, November, and December; but, in the first and last Month in every Year, the number of days of Frost and Snow is as follows.

An extraordinary Appearance in the Lower
Atmosphere.

On Sunday the 25th of December about 10 o'clock, A. M. there appeared floating in the atmosphere minute particles of Ice, which in about an hour became condenced and fell in Sleet, covering the surface of the ground with Ice. The cold was intense that morning, the Thermometer stood at 16, sixteen degrees below the freezing point; the above phenomenon was never before seen but in very high latitudes.

It has been long the general opinion that Frost is more salutary in Winter than mild and open weather; but the learned Dr. Heberden, jun. in a paper presented to the Royal Society, mentions a curious sact, that the excess of the mortality in January 1795, above that of 1796, was no less than 1352 persons; a number (says the Doctor) sufficient surely, to awaken the attention of the greatest admirers of a Frosty Winter.

In Edwinstow, a village about fix miles from Mansfield in a remarkable healthy and dry fituation on Sherwood Forest, a contagious disorder broke out during the very hard Frost in December

December last, which proved to be a Scarlet Fever; it carried off several children, and but very few houses of the poor people escaped the contagion. This is another proof that Frosty weather is not so salubrious as has been imagined; but a further investigation must be left to the learned faculty.

FINIS.

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PRINTED AT S. TUPMAN'S MINERVA OFFICE.

The little of the little

granton al salar service

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ALV THE REPORT OF THE

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REGISTER of the WINDS for the Year 1797.

N. West.	7	<b>**</b>	67	က	01	0	9	4	7	11	7	5	64
S. West. N	13	22	10	9	17	9	19	22	12	∞ '	9	11	152
S. East.	5	က	5	9	ෆ	က	4	01	01	H	က	4	41
N. East.	က	-	14	·∞	ıÇ.	10	0	0	=	9	ග	0	51
SOUTH	I		0	7	61	0	0	0	-	-	-	4	13
WEST, NORTH SOUTH	1	0	0	61	-	0	0	0	0	60	4	0	11
WEST.	1	0	0	2	-	0	2	က	5	-	2	7	27
EAST.	0	0	0	1	0	2	0	0	61	0	1	0	9
MONTHS.	January, -	February, -	March,	April,	May,	June,	July,	August,	September,	October, -	November,	December, -	Total,

REGISTER of the WEATHER for the Year 1797.

Thunder.	0	0	H	0	က	က	5	67	0	0	0	0	14
HOT, or The MILD.	5	0	0	н.	7	0	6	0	0	=	2	3	23
FAIR.	25	500	22	11	12.	6	18	12	15	21	24	17	212
RAIN.	9	2	7	19	19	21.	13.	19	15.	10	4	14	149
SNOW.	0	0	61	0	0	0	Q	0	0	0	23	0	4
FROST.	0	17	12	C.	Н	0	0	0	4	9	7	9	65
MONTHS.	January,	February, -	March,	April,	May,	Inne,	July,	August,	September,	October,	November,*	December, -	Total,

• Nov. 29th, about Eleven o'Clock A. M. it began to fnow, and by Eleven the next Morn; it was 14 Inches deep upon level Ground; there was no Wind.—On Dec. 1st it thawed.

The greatest Rise & Fall of the BAROMETER in the Year 1797.

FALL.	29:2	• •	29:02	• •	29:3	29:2	•	28:8	28:7	28:8
DAYS.	31	27	w 4	<b>—</b>	9	100	20	21	22	12
RISE.	30 : 3 4 : 3	• •	30:9	30:1	30:1	29:9	29:8	30:0	30:1	30:1
DAYS.	9	21	23	9	10	24	10	11	6	25
MONTHS.	January, February, -	March,	May,	June,	July,	August,	September,	October,	November,	December, -

The greatest Rise and Fall of the THERMOMETER in the Year 1797.

MONTHS.	DAYS.	RISE.	DAYS.	FALL.
January,	20	52	11	28
February, -	-1	52	17	30
March,	56	49	. =	60
April,	25	. 59	9	000
May,	25	75	10	000
June,	29	70	. 20	49
July,	56	80	-	59
August,	∞	70	13	, v.C.
September,	-	65	56	5.1
October,	CC.	56	28	600
November, -	14	5.1	25	24
December, -	28	47	11	22,

Excess of Cold in the Year 1797, when the Thermometer was below the Freezing Point.

Months, and Days thereof	State of the Thermom.	Deg. below the Freez- ing Point.	WIND.
Jan. 11,  13,  16,  17,  25,  Feb. 15,  17,  18,  Nov. 23,  24,  25,  Dec. 3,  4,  24,	28 31 30 30 31 31 30 30 31 28 24 30 30	4 1 2 2 1 1 2 2 4 8 2 2 2	S. E. S. W. N. W. N. W. S. W. S. W. S. W. W. W. N. W. N. W. N. W. N. W. N. W.

# [ 9 ]

# T A B L E

Of the sudden Transitions in the Temperature of the Air, as they occurred in the Year 1797.

Column No. 1, the Months; 2, the Days of the Month; 3, State of the Thermometer; 4, Change from Gold to Heat; 5, from Heat to Cold, (in Degrees;) 6, Wind.

N. B. Changes below ten Degrees are not noted.

Í	2	3	4	5	6
MONTHS.	DAYS.	Therm.	Change to Heat.	Change to Cold.	WIND.
January .  May	19 20 12	41° 52 44	11		S. W. S. W. S. E.
1724	13 25 26	54 75 58	IO	7.47	S. W. S. S. W.
June	2 3	60 50		10	S. W. N. W.
	5 6 7	58 69 56	11	13	N. E. S. E. N. W.
	19 20 21	70 49 51		21	N. W. N. E. S. E.
• , • •	2,2	6.2	II		S.E.

CARRIED FORWARD.

[ 10 ]
BROUGHT FORWARD.

1	2	3	4	_ 5	6
MONTHS.	DAYS,	Therm.	Change to Heat.	Change to Cold.	WIND.
June	23 24	66		13	E. N. W.
July	18	-74 62		12	S. W. S. W.
	25 26	70 80	10		W. S. W.
	28 29	78 64	# 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1	14	S. E. S. E.
August	8	6 t	10		S. W. S. W.
October	27 28	45 33		12	N. W. N. E.
Nov	13	39 51	12		S. W. S. W.
	18	43		11	N. W. N. W.
	25 26	48	24		N. W. S. W. S.
Dec	4 5	30 46 32	16		S. W. N. W.
	12	42	10	1	S. W. S. W.
	15 16	35 46 45	11		S. W. W.
	21 25	33		12	S. E. S. W.
	26	47	15	. ,	S. W.

[ 11 ]

Quantity of Rain which fell at the following Places.

YEARS.	LONDON	West Bridgford, NOTTS.	Lancaster.	Kendal.
1794—	inches, 23—32	26—27	50-81	69—65
1795—	18—15	24—64	48—98	57—98
1796—	17—26	19—16	36—42	45-24

#### On HEAT and COLD.

THE learned Mr. WILLIAM JONES, F. R. S. tells us, "That the common Changes of the Seafons in England, are comprehended within 60 degrees of Fahrenheit's thermometer, from 16 to 76: in which interval, the mean degree of heat for the Winter quarter is 31; the mean

mean degree for the Vernal equinox 43; for the Autumnal, 48; for the Summer quarter, 61. I fet down these, as they were found, from a series of my own observations. The Noon-day heat of what we call the Summer air, is at 76; but the extraordinary heat of the Summer air, goes to 80 and upwards."\*

In his Scale of the Degrees of Heat and Cold, he puts down, "Hottest air in England, 86; very hard Frost, 16."



<sup>\*</sup> Jones' Phisiological Disquisitions, p. 166.

### E 13 ]

Number of Days of Frost and Snow in Jan. Feb. & March, compared with those of Oct. Nov. & Dec.

F.—FROST, S.—SNOW.

YEAR.	MONTHS.	F.	S.	MONTHS.	F.	S.
	January,	9	0	OEtober,	6	0
1797	February, .	17	0	November,	7	2
	March,	12	2	December, .	6	. 0
Total		38	2		19	2

#### REMARKS on the WEATHER.

WE had this year a backward Spring; the Summer was cold, wet, and changeable: the hottest day was on the 26th of July, when the Thermometer was at 80 degrees, and at

## [ 14 ]

76.—Summer heat, only four days in this year.

The Autumn was cold and unpleafant; the weather frequently changing from frost to rain. On the 7th, 8th, 10th, 11th, and 12th of November, a remarkable thick Fog continued day and night.

The Effects of a TORNADO or HURRICANE, which happened near WORKSOP in Nottinghamshire, on the 23d of July 1797, about One o'Clock P. M.

ITS course was in a northeast direction; and its violence was first perceived on the Forest, between Worksop and Manton, where it stript large Branches from Oak and other Trees, scattering them to considerable distances; taking up Cocks and even Stacks of Hay,

Hay, driving them in every direction; and a wooden Barn there was unroofed and thrown down.

At Kelton, a little further to the northeast, a small Cottage and an Outhouse were unroofed; and all the Appletrees in an Orchard adjoining, torn up by the Roots.

The Storm going on from thence with encreased violence, tearing up some Trees, splitting others, and destroying every thing in its way, till arriving at a plantation of Spruce Firs, near Scoston, belonging to Mr. Sutton, where it cut an avenue through it, about 30 yards wide, and threw down every tree in its course, except one, which has unaccountably stood, tho' in the very centre of its progress.

This remarkable Hurricane or Whirlwind, did not feem to extend above three miles in length, and about 100 yards in breadth.

On the day it happened, and on the preceding one, the Claps of Thunder, with vivid Lightning, were frequent and violent: the atmosphere seemed to be strongly impregnated with the Electric Fluid, which, by its action, might rarefy the air in a partial or local manner, and thus occasion the above-mentioned effects, till the Equilibrium was restored.



A

#### CONTINUATION

OF THE

ANNUAL

# Meteorological Register,

KEPT AT

MANSFIELD WOODHOUSE,

FROM THE YEAR

1797,

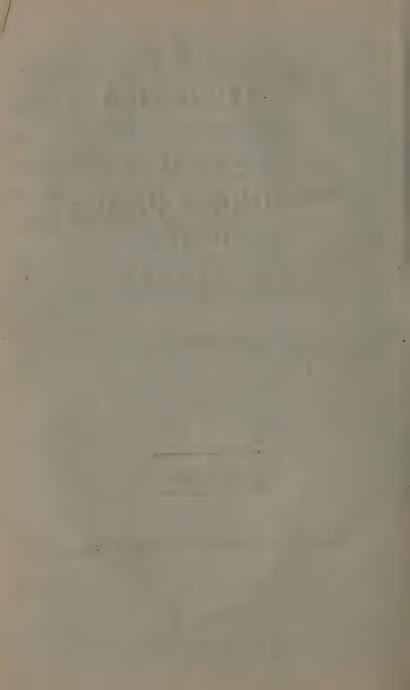
TO THE END OF THE YEAR

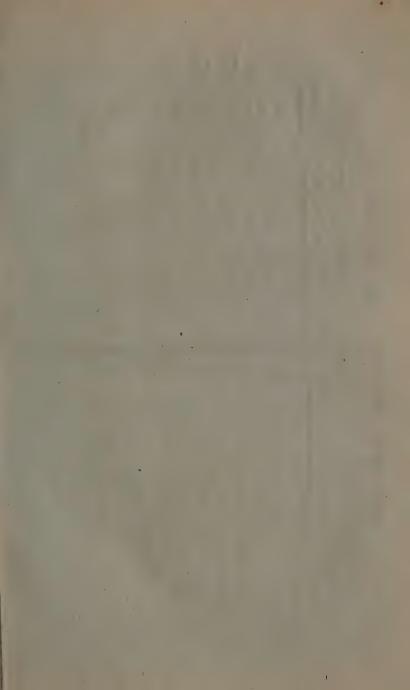
1798.

By H. R.

NOTTINGHAM:

PRINTED BY S. TUPMAN, . SMITHY ROW.





Register of the WINDS for the Year 1798.

1	
N. West	8000447087709
S. West. N. West.	511 012 02 02 03 04 05 05 05 05 05 05 05 05 05 05 05 05 05
S. East.	401070040182
N. East.	40 44 7 80 10 10 10 10 10 10 10 10 10 10 10 10 10
South.	000000H0000H
North.	0000H000H000
WEST.	48111407604110
EAST.	000000000000000000000000000000000000000
MONTHS.	January, February, March, April, May, July, Auguft, September, October, November, December,

Register of the WEATHER for the Year 1798.

									-	-			
Thunder.	0	0	0	7	0	0	ಣ	01	-	0	C	0	0
Hot or Mild.	ص	10	0	<b>1</b> 00	∞	4	0	0	0	0	0	0	30
FAIR.	21	21	23	20	20	25	9	21	16	16	18	. 21	228
RAIN.	$\infty$	5	9	10	11	2	25	10	14	15	11	7	127
SNOW.	01	7	67	0	0	0	0	0	0	0	Ħ	က	IO
FROST. SNOW. RAIN.	12	91	12	4	-	01	0	0	-	4	0	16	177
MONTHS.	Tanuary,	February,	March,	April,	May,	lune,	July,	August,	September,	October,	November,	December,	Total,

The greatest Rise and Fall of the BAROMETER in the Year 1798.

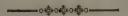
FALL.	848 9 9 9 9 9 9 9 8 8 8 8 8 8 8 8 8 8 8
DAYS.	18th, 31st, 22. 17, 18. 5. 12, 14. 20, 21. 16, 21. 4, 10, 13. 27. 8,
RISE.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
DAYS.	8th. 6, 7, 8. 3, 4. 9. 21, 22. 8. 28, 29. 21, 25, 27, 28.
MONTHS.	January, February,* March, April, June, July, August, September, October,

The three Figures 6, 7, 8, in the Column of Days for February shew that on those 3 Days the Barometer was stationary at 30 inches 3 lines: the same is continued in the Table of the Rise and Fall of the Thermometer.

The greatest Rise and Fall of the THERMOMETER for the Year 1798.

FALL.	82 2 8 4 4 9 6 9 6 4 4 4 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
» DAYS.	8th. 10th.  17 18 11 12 29 29 29 29 29 29
RISE.	94 55 65 4 5 65 5 4 5 6 5 5 1 4 6 5 5 6 5 6 5 1 4 6 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
DAYS.	21st. 28 28 12 18 18 10 17. and 18.
MONTHS.	January, February, March, April, May, June, July, August, September, October, November,

Excess of Cold in the Year 1798, when the Thermometer was below the Freezing Point.



MONTHS, and Days thereof.	State of the Thermom.	Deg. below the Freez- ing Point.	WIND.
Jan.     8       9     10       Feb.     17       18     19       20     Nov.       21     20       22     24       25     26       27     28       28	29 31 29 27 27 28 29 27 30 30 31 31 27 26 20 12	3 3 5 5 4 3 5 2 2 1 1 5 6 12 20 21	S. E. S. W. N. W. N. W. S. W. E. E. N. S. W. E. E. N. S. W. E. S. E. N. S. E. S. E. N. S. W.
- 29 - 30 - 31	30 26	6	S. W. N. E.

<sup>\*</sup> On the 27th, at 9 at night, the Thermometer was at 8 Degrees; 24 Degrees below the Freezing Point.

The mean Height of the lower Term of Congelation in Latitude 52 is most probably in

MONTHS.	FEET.	MONTHS.	FEET.
January	1800	July	10380
February	3084	August	10166
March	4314	September	8268
April	5400	October	6240
May	7369	November	3 <b>7</b> 15
June	9480	December-	2770



### [ 10 ]

# T A B L E

Of the sudden Transitions in the Temperature of the Air, as they occurred in the Year 1798.



Column No. 1, the Months; 2, the Days of the Month; 3, State of the Thermometer; 4, Change from Cold to Heat; 5, from Heat to Cold, in Degrees; 6, Wind.

N. B. Changes under ten Degrees are not noted.

. <b>1</b> ,23	2	3	4	5	6
MONTHS.	DAYS.	Therm.	Change to Heat.		WIND.
January	22	47		12	s. w. s. w.
Frbruary	23 9	35 34		D del	W.
Particulation of the second	10	45 51		A STATE OF THE PARTY OF T	W. N. W.
March	16	37 46	-Paradition of the control of the co	14	W. N. W.
Commence of the commence of th	30	33		13	N. W. N. E.
April	3 <b>I</b> 28	32 64	contribution of the state of th		N. W. S. E.
<i>May</i>	29 28	46 68		18,	N. E. N. E.
	29	55		13	N.E.

[ 11 ]

#### BROUGHT FORWARD.

ī	2	3	4	5	6
MONTHS.	DAYS.	Therm.	Change to Heat.	Change to Cold.	WIND.
June  July  Aug  Sept  Dec	4 5 17 18 28 29 2 3 4 9 10 29 30 1 25 26 5 6 27 23 24 26	63 75 64 75 63 73 66 56 66 70 60 49 59 42 55 54 43 34 50 39 27 20	12 11 10 10 10 10 13	10	S. W. W. N. W. N. W. N. W. N. W. S. W. E. E. E.
	27 28 29	11 25	14	10	S. E.   N. W.   S. W.

### [ 12 ]

No. of Days of Frost & Snow in Jan. Feb. & March, compared with those in Oct. Nov. and Dec.

F.	Frost.	S.	Snow
----	--------	----	------

YEAR.	Months.	F.	S.	Months.	F.	S.
	Jan	12	2	O&	4	0
1798	Feb	16	2	Nov	9	1
	March.	12	3	Dec	16	3
Total		40	<u>~ 7</u>		29	- 4

Quantity of Rain which fell at the following Places in the Year 1798.

London.	West Bridgford, Notts.	Lancaster.	Kendal.
inches. 26—22	27—22	48—19	60—85

### REMARKS on the WEATHER.

T will appear in the preceding Tables, that there were in the year 1785, 87 days of Frost, and in 1795, 66 days; in this year 1798, there have been 77 days of Frost, which are more than appear to have been in any one year fince the above-mentioned year 1785, but it will be found, in looking over the Table of Excess of Cold in 1795, that there were 32 days when the Thermometer was below the Freezing Point. In the Table of Cold for the year 1798, it will be feen that there were only 20 days

days in which the Thermometer was below that point, but on the 27th of December, at 9 o'clock A. M. it was at 12°, 20 degrees below, and at 9 at night it stood at 8°, 24 degrees below; on the 28th, the Thermometer at 9 o'clock A. M. was at 11°, 21 degrees below the Freezing Point. Hence it appears that the Cold was more severe on the 27th and 28th of December than at any time in the year 1795.

In March, April and May, there were 63 days without Rain, which are 18 more than appear to have been in the year 1797, and notwithstanding the dryness of the season, this spring was forwarder than the last, which may probably be owing to the ten days of very mild weather in February.

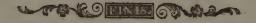
The fummer was pleafant, from being rather temperate than hot. On the 25th of May the Thermometer was at 79°; on the 12th of June as high as 80°; on the 13th at 77°, and on the 18th of July at 76°:—these were the only four days this year of Summer Heat.

The year 1798 has been remarkable for the number of fudden Transitions in the Temperature of the Air, as will appear by the Table.

Upon the whole, the Weather has been favourable to Vegetation: there has not been, for feveral years, a more plentiful Harvest; but the crops of Hay, in this part of Nottinghamshire, were thin. The Kitchen Gardens produced plenty of good Fruit of all Kinds.

The foliage of the Oaks, Elms, Beeches, and Ashes, were uncommonly thick, and continued longer than usual;—the Oaks had a great quantity of Acorns.

The year closed with indications of a continuance of Frost; the Barometer on the 30th and 31st was at 30 inches and 2 lines, and the Thermometer on the 31st, 6 degrees below the Freezing Point.





### CONTINUATION .

OF THE

ANNUAL

# Meteorological Register,

KEPT AT

MANSFIELD WOODHOUSE,
FROM THE YEAR

1798,

TO THE END OF THE YEAR

1799.

By H. R.

NOTTINGHAM:

PRINTED BY SAMUEL TUPMAN.





1700.
AR
YE
THE YEAR
FOR
WINDS
OF THE
REGISTER
REGIS

N. W.	0 00 1 4 4 0 1 00 1 00 4 1	53
S. W.	81 470 0 440 40 -	1.5
S. E.	140 11000 1	40
Z. H.	2 2 2 2 4 7 0 H H H H H H H	19
South.	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	NO
North.	01401101000	777
WEST.	a 4a → <b>0</b> a ∞0 ∞ a 0 0 Å	40
EAST.	0000 m m m 0000 m	7 7
MONTHS.	January, February, March, Mapril, June, July, August, September, October, November, December, December, December,	60000

Rain which fell at West Bridgford.	Notts. in 1799.	69	002	0	92	75	76	2, 59				, 62	. 80	28   45
	nder. Inc	0	1	. 0	1 2	0	0	2	c0	-	0	0 1	0	00
ar 1799.	Hot or Thu Mild.	0		0	-	0	0	0	0	0	0	0	0	62
WEATHER for the Year	Fair.	24	Pres.	2 1 2	20	17	23	91	00	50	18	18	17	200
THER J	Rain.		7	7	11	77	7	15	200	10	00	100	6	130
	Snow.	Ø	10	90	9	0	0	0	0	0	0	0	5	56
R of the	Frost.	. 19	11	10	က	-	4	-	1	7	9	4	91	78
REGISTER of the	MONTHS.	January,	February, -	March,	April,	May,	June,	July,	August,	September,-	October,	November, -	December, -	Total,

The greatest Rise and Fall of the BAROMETER in the Year 1799.

MONTHS.	DAYS.	RISE.	DAYS.	FALL.
January,	1. 2. 3. 4	30.1	23	28.9
February, -	8. 10. 25.	29.8	16	28.7
March,	7	30.1	20. 27	29.1
April,	14	30.	10	28.5
May,	16.	30.1	19. 20	20.5
June,	7. 8. 11	30.1		29.5
July,	5. 6. 7	29.8	18	29.
August,	8. 26	20.8	17	28.0
September,-	6	30.1	22	28.8
October,	27. 28	30.	4	29.
November, -	20. 21. 22.	30.1	8 8	28.5
December, -	31	30.3	6	29.

The greatest Rise and Fall in the THERMOMETER in the Year 1799.

	-											<u> </u>
FALL.	24.	23.	27.	30.	40.	49.	52.	54.	40.	200	, co	0 0
	. 31.	ŧ	ŧ	ŧ	ı	1	1	ŧ	1	1	b	i i
DAYS.	30.	1	1	1	1	1	1	1	1	1	1	1
	28. 30.	<u> </u>	ى ن	4.	14.	11.	28.	6	30.	27.	10.	31.
RISE.	44.	49.	50.	54.	61.	72.	.29	.29	68.	56.	53.	49.
	1	1	1	ı	į	1	1	4	1	ı	i	1
DAYS.		ŀ	â	ı	1	1	22.	1	1	1	3	1
D	1	1	b	1	1	,1	12.	9	ì	·	12.	ı
	0.	27	junet.	10.	200	$\infty$	9	4	4.	1.	. 01	-
MONTHS.	January, -	February, -	March,	April,	May,	Iune,	July,	August,	September,	Othober, -	November,	December, -

Excess of Cold in the Year 1799, when the Thermometer was below the Freezing Point.

Days of the Month.	State of the Thermom.	the Freez-	WIND.	Degrees be- low the Freezing Point at 9 o'cl. P. M.
Jan.     1       2     3       3     4       5     9       10     12       25     28       29     30       31     Feb.     1       2     3       4	30 27 27 30 29 31 28 31 24 27 24 24 26 27 23 29	2 5 5 2 3 3 1 4 1 8 5 8 6 5 9 3	E. S. W. N. E. E. S. W. S. W. S. W. S. W. N. W. N. E. N. E. N. N. W. N. E. N. W. N. W.	2 5 5 7 5 4 5 4 9 7 14 14 8 7

CARRIED FORWARD.

### BROUGHT FORWARD.



# [ 10 ]

### ATABLE

Of the sudden Transitions in the Temperature of the Air, as they occurred in the Year 1799.

Column No. 1, Months; 2, Days of the Month; 3, State of the Thermometer; 4, Change from Cold to Heat; 5, from Heat to Cold, in Degrees; 6, Wind.

N. B. Changes under 10 Degrees are not noted.

Î	1	2	3	4	5	6	A supplemental and
	Months.	Days.	Thermr.	Change to HEAT.	Change to COLD.	Wind.	The second livery of the second livery of the second
	February April May June	9 10 18 19 28 29 1 2 13 14 7 8 10 11 12 21	25 37 34 45 54 40 55 43 50 40 62 72 62 49 64 59	10	14	S. W. S. E. W. W. W. E. N. E. S. W. S. W. N. E. S. W. S. W. N. E. S. W. N. E. S. W. N. E. S. W. N. E. S. W.	
	July	22 16 17	70 66 55	11	11	W. S. N. W. N. W.	

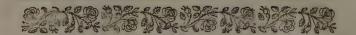
CARRIED FORWARD.

[ 11 ]
BROUGHT FORWARD.

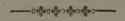
Nov. 1 1 1 Dec.	6   67 7   57 6   59 7   69 5   39 6   52 1   40 2   53 3   43 1   49 2   38	10	10	W. N. S. W. S. W. W. W. S. W. W. S. W. N. W. S. W. N. W.
-----------------	--	----	----	--

Number of days of Frost & Snow in Jan. Feb. and March, compared with those of Oct. Nov. & Dec.

YEAR.	Months.	F. S.	Months.	F. S.
	January	19— 2	OEtober	6 0
1799	February	11-10	November	4-0
	March -	10-3	December	16— 5
Total		40-15		26— 5



# REMARKS ON THE WEATHER.



## January.

N the first a very sharp frost, which continued till the eighth, with hazy weather, and a moist atmosphere; from the first to the sixth the Thermometer was below the freezing-point, as may be seen in the Table of Excess of Cold; on the eighth, rain in the morning, and hard frost in the evening: during the remainder of the month, the weather continued to vary from frost to rain.

Kebruary

## Kebruary

COMMENCED with a very severe frost, and a heavy fall of snow for two days; from the second to the twelfth frequent showers of snow with hard frost; the Thermometer from the first to the tenth below the freezing point; on the nineteenth the snow began to melt, with a thorough thaw; from that time to the end of the month, frequent showers of rain.

## March.

THE weather changeable till the ninth and tenth, when there came another great fall of fnow; very unfettled weather till the latter end of the month, with some days of severe frost: on the thirtieth and thirty-first, the

Ther-

# [ 14 ]

Thermometer was 5 degrees below the freezing point.

# April.

THE first and second, hard frost, with showers of fnow; the Thermometer on the first, fecond, third and forth, at nine o'clock at night was 5 degrees below the freezing point; on the fourth, about eleven o'clock at night, it began to fnow, and more is supposed to have come down in ten hours than ever was known to have fallen in that space of time, in this country. On the fifth, about eight o' clock in the evening, there came from the N. E. two vivid flashes of lightning, without thunder; on the eighth, showers of snow and rain; from that time to the fixteenth, cold, with

with frequent showers,—on that day at ten o'clock A. M. the Thermometer was at 43°, and at one P. M. at 50,—so that there was a change, in the temperature of the air, of 7 degrees in less than three hours: from the sixteenth to the end of the month, a continuance of cold wind, with showers of rain and hail.

# May. Mr Quant 21

FROM the first to the sixteenth, with only a variation of four days, cold E. and N. E. winds, which seemed to have stopped the progression of vegetation; the leaves did not appear on the hedges till about the sisteenth, and then only on the S. W. sides: Oaks, in general, did not begin to bud till about the twenty-

twenty-fourth; on the twenty-ninth a few fmall leaves appeared.

## June.

WEATHER variable and cold, not one day of fummer heat; the highest rise of the Thermometer was on the eighth, when it was up at 72°; on the twenty - second and thirtieth, at 70; these were the only warm days in this month. A fharp frost in the morning of the fixteenth, feventeenth, eighteenth and nineteenth; frequent fudden changes in the temperature of the air; on the tenth, at nine in the morning, the Thermometer was at 620, and at nine at night 52°; on the fixteenth, at nine o'clock A. M. Thermometer at 60°, at nine P. M. 40°; on the feventeenth, at nine A. M. 58°, at nine P. M. 48°; on the twentythird. third, at nine A. M. 64°, at nine P. M. 54°, hence it appears that these changes from heat to cold, were in the space of twelve hours.—
The changes that happened in twenty - four hours, will be seen in the Table.

# July.

VERY little appearance of Summer; there were but three days when the Thermometer was as high as 67°, which is 9 degrees below fummer - heat:—the weather cold and wet throughout the month, with but little variation.

# August.

A CONTINUANCE of cold and wet weather, there were but two days when the Thermometer was as high as 67°, the fourth and the fixth, as may be feen in the Table. A great deal of Hay carried away by the floods.

# September.

THE first eleven days fair, which seemed to promise a favourable harvest, but the heavy rain, and frequent showers, that followed, greatly damaged the Corn.

### October.

THE first, a frost, the three following days rain; from the fourth to the fixteenth, rain almost every other day: on the fixteenth and seventeenth, a frost; the eighteenth, nineteenth and twenty-first, rain; from that time to the thirtieth, cloudy damp weather.

Pobember

### Pobember

COMMENCED with rain; from the fecond to the eighth, very flormy and wet; daily showers till the fixteenth; from the feventeenth to the twenty-feventh, foggy and damp; the four last days cloudy.

The foliage continued on the trees a confiderable time longer than usual; the Oaks did not change their verdure for the Autumnal tint, till about the middle of this month. At this time a great scarcity of wheat flour, owing, in some degree, to the corn having been got in wet, and not yet sufficiently dry to grind: a partial want has been occasioned by the mills not being able to work for want of wind. Several acres of Barley and Oats

# [ 20 ]

not cut in the neighbourhood of Mansfield; grain in general bad.

### December.

THE first nine days frequent showers of rain; from the ninth to the fixteenth, hazy and damp; on the fixteenth and feventeenth, sharp frost, and damp; on the eighteenth an extraordinary fluctuation in the Barometer, it was that morning at 29 inches 4 lines, where it continued till about half an hour after three P. M. it then took a rapid rife, and by feven o'clock P. M. it was up at 30 inches 2 lines, so that there was a rise of eight lines in three hours and a half. The nineteenth, twentieth and twenty-first, hard frost, with fnow: the degrees below the freezing point will be feen in the Table. A con-

A continuance of fevere frost to the end of the month; on the thirtieth, at nine P. M. the Thermometer was 22 degrees below the freezing-point, and on the thirty-first, 22 degrees below at nine in the morning and nine at night. Hence it appears, that the frost has been more severe this year than it was in the year 1795; in will also be seen in the Table of Excess of Cold for this year, that there were thirty - five days when the Thermometer was below the freezing point, which are three more than there were in the cold winter of 1795, and fifteen more than in the year 1798.

The great dampness of the atmosphere during the Autumn, has probably preserved the leaves on the trees much longer than usual: the Oaks were not entirely divested of their foliage till after the second week in this month.

The weather, throughout the year, has been remarkably cold and wet; all forts of culinary vegetables very fcarce; the fruit every where bad, and even the produce from hot walls, though favourable to the eye, had no flavour and hardly eatable, owing to the want of fun.

The harvest uncommonly late, and grain in general bad, the price at Manssield market, on Thursday before Christmas-day, as follows:

Barley,—from 3l. to 3l. 10s. to 4l. per Qr. Wheat,—from 34s. to 36s. per Load;
Oats,—from 34s. to 38s. per Quarter;
Rye,—from 20s. to 21s. per Load;
Beans,—from 30s. to 33s. do.
Peas,—from 18s. to 20s. do.
Three Strikes to a Load.

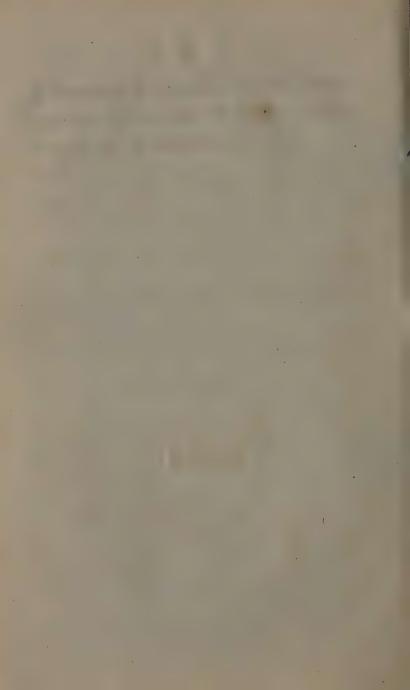
Such has been the advanced price of Corn; but we have now reason to hope, that the salutary

# [ 23 ]

falutary measure taken by Government to prevent a scarcity of flour, will, in a short time, alleviate the distresses of the poor.

FINIS.





### CONTINUATION

OF THE

ANNUAL

Meteorological Register,

KEPT AT

MANSFIELD WOODHOUSE,
FROM THE YEAR

1799,

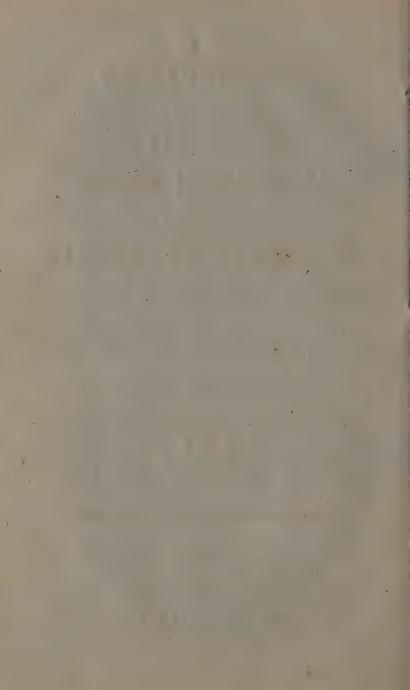
TO THE END OF THE YEAR

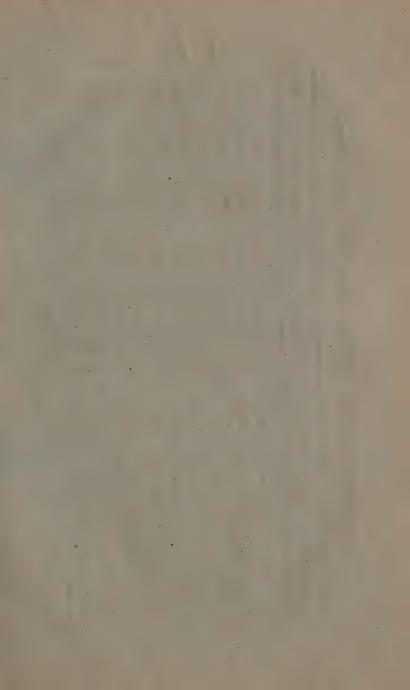
1800.

By H. R.

NOTTINGHAM:

PRINTED BY SAMUEL TUPMAN.





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North.	0 10 0 1 1 0 0 1 0	 J.
WEST.	- 4 00 00 40 00 1 a	50
EAST.	0,000 ± 000 ± 000 to to	12 g
MONTHS.	January, February, April, May, July, July, September, October, November, - December, -	Yotal,

# REGISTER OF THE WEATHER FOR THE YEAR 1800.

umder.	0	0	0	0	က	, ;=====	0	0	67	0	0	0	9
* Hot or TI	1	0	က	C1	0	0	9	9	4	C1	0	- 2	29
FAIR.	17	2.	2	0	19	2.1	200	20	12	10	200	100	226
RAIN.	$\infty$	<u></u> -	4	<u>C1</u>	12	6	್ಯ	<u>-</u>	30	₩ 61		0	122
FROST. SNCW.	9	4	က	0	0	0	0	0	0	0	-	က	17
FROST.	10	19	10	23	==	pend	0	0	0	5	·	$\infty$	67
MONTHS.	January,	February, -	March,	April,	May,	June,	July,	August,	September,-	October,	November,-	December, -	Total,

\* THE Column with Hot or Mild refers to the Temperature of the Air in Summer and Winter, that is, when the Thermometer is above 76 Degrees in Summer, and 45 Degrees in Winter.

The greatest Rise and Fall of the BAROMETER in the Year 1800,

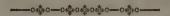
MONTHS.	DAYS.	RISE,	DAYS.	FALL.
anuary,	1st,	· l	18th,	- 8.8.8
repruary, - March,	50th, 21st, 22d, 29.9	1 1	28th, 29th, 31st, 29.2	29.2
April,	26th, 27th, 30th, 29.6	30th, 29.6 -	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	28.6 -
June,	28th, 30.	30°0°	8th, 9th, 21st, -	29.9
August,	10, 24, 25, 20, 27, 30.1 oth, 30.1	30.1	23d,	29.5 -
September,- October	1st, 13th, 14, 15, 29.8	29.8	7th, 22d, 25th, -	29.
November, -	1		1	28.5 -
December, -	10th,	29.6	5m, -	7.07

The greatest Rise and Fall of the THERMOMETER in the Year 1800.

30th, 3
28d, 22d, - 22d, 3d,

\* THE Theimometer on the 31st at Noon, in the Shade 82 Degrees, + On the 1st and 2d at Noon, S2 Degrees.

Excess of Cold in the Year 1800, when the Thermometer was below the Freezing Point.



MONTHS, and DAYS thereof.	State of the Thermom.	Degrees be- low the Freezing Point at 9 A. M.	Degrees be- low the Freezing Point at 9 P. M.	WIND.
Jan. 1  2  21  21  22  30  Feb. 5  7  II  12  13  26  27  28  Mar. 5  6  7  8  10  Nov. 26  28	13 24 25 24 30 31 28 30 28 30 29 30 30 29 29 26 26 31 29 30	19 8 7 8 2 1 4 2 4 2 3 2 1 3 3 6 6 1 3 2	6 7 7 2 4 3	N. W. S. N. W. S. W. S. W. S. E. N. E. N. E. N. E. N. E. S. E. S. E. S. E. S. E. S. E. W. W.
Dec. 293031	3° 23 21	2 9 11	10	N. W.   N. W.

# [ 9 ]

Quantity of Rain which fell at the following Places in the Year 1800.

MONT'HS.	Wood	nsfield dhouse, ofts.	Chatsworth, Derbys.		
JANUARY, - FEBRUARY, MARCH, APRIL, JUNE, JULY, AUGUST, SEPTEMBER OCTOBER, - NOVEMBER, DECEMBER,	Inc.  1 1 0 2 2 0 0 3 4 2 3 2	T.H.  8 4  3 6  5 7  5 4  1 3  2 4  1 0  5 5  9 0  1 6	Inc. 4 0 1 2 1 0 0 5 3 2 2	T. H.  1 0 5 2 7 1 8 4 6 7 6 2 1 5 9 8 7 6 7 6 3 0	
TOTAL, -	26	04	27	0 4	

# ---000 A 35 A 35 000---

No. of Days of Frost & Snow in Jan. Feb. & Mar. compared with those in Oct. Nov. and Dec.

F. Frost,—S. Snow.

	I. IRUSI	9	). DNOW.	
YEAR.	Months.	F. :	S. Months.	F. : S.
1800	Feb	19.	6 OEt 4 Nov 3 Dec	u III
Total,		39 1	3	24 4

# [ 10 ]

### TABLE

Of the sudden Transitions in the Temperrture of the Air, as they occurred in the Year 1800.

# -000 £ £ £ 000-

COLUMN No 1, the Months; 2, Days of the Month; 3, State of the Thermometer; 4, Change from Cold to Heat; 5, from Heat to Cold, in Degrees; 6, Wind.

NB. CHANGES under ten Degrees are not noted.

1	2	3	4	5	6
Months.	Days.	Therm.	Change to Heat.	Change to Cold.	WIND.
Jan.	1 2 3 25	13 24 38 32	11	Services Services Services Services	N. W. S. S. W. S. W.
March -	26 10 11 23	47 31 41 42	15		S. W. S. E. S. E. S. W.
April -	24 25 25 26	55 45 44 55	<u>-</u>	10	W: S. N. E. N. E.
May,	9 10 29 30	61 51 62 52		10	N. E. N. E. S. S. W.

CARRIED FORWARD.

[ 11 ]

### BROUGHT FORWARD.

I	2	3	4	5	6
Months	Days.	Therm.		Change to Cold.	WIND.
July Aug OET Nov Dec	17 18 9 10 1 2 21 22 23 9 10 11 12 20 21 25 26 1	79 68 74 60 50 61 52 36 47 46 35 52 38 33 43 40 29 46	11 17 10 10	11 14 16 11 14	N. W. N. W. S. W. N. E. S. W. W. N. W. N. W. N. W. N. W. W. N. W. W
	11 12 19 20	35 34 44 35 46	10	I I	S. E. S. S. S. W.

# REMARKS on the WEATHER.



# January.

ON the first and second, severe frost with snow; the third, a thaw; from that day to the seventeenth, hazy and thick sogs: the sun never appeared but twice in the first twenty days:—on the eighteenth, nineteenth, and twentieth, snow; from that time to the end of the month, frost and rain with showers of snow and hail.

# Rebruary.

THE first, frost in the morning and rain in

the evening; second, third and fourth, cold wind, with rain at night; from the fifth to the sixteenth, both inclusive, sharp frost; snow on the tenth and sixteenth; from the seventeenth to the twenty-second, frost, with thick fogs; twenty-fifth, a little rain and snow; twenty-sixth and twenty-seventh, frost and snow:— a long continuance of N. E. and S. E. winds. See the Table.

#### March.

The first nine days, sharp frost, in which five were below the freezing point, as may be seen in the Table; snow on the fourth, tenth and twelfth; fogs and hazy weather from the fourteenth to the twentieth; showers on the twenty-eighth, twenty-ninth, and thirty-first: the rest of the month fair: very mild on the twenty-fourth.

#### April.

SEASONABLE weather throughout the month; on the twelfth, hedges in leaf:—vegetation greatly forwarded by frequent mild showers.

#### May.

THE beginning, hazy and warm; on the third, the Thermometer, at twelve o'clock in the shade, was at 65°: from thence to the end of the month, seasonable showers:—on the twenty-first. a violent thunder-storm with hail.

#### June.

For the first six days, a north - easterly wind, with showers and hazy weather; the sun did not appear, except for a few minutes

in the morning, till the ninth; from the eighth to the nineteenth, a N. W. wind; cloudy weather to the latter end of the month; the evenings cold:—the hottest day was on the nineteenth, when the Thermometer was at 69°.

#### July.

FROM the first to the sixteenth, cloudy and temperate; from the sixteenth to the end of the month, hot and seasonable weather; the Thermometer on the seventeenth was at 79°, and on the thirty-first, 81°, at noon, 82°;—great crops of Hay, and well got in.

#### August.

A CONTINUATION of hot weather; on the first and second, at nine o'clock A. M. the Thermometer stood at 78°; at noon, 81°;

on the ninth, 78°, at noon: except a little shower on the fourth, no rain till the nine-teenth, which continued till the twentyninth, and was of great fervice to the Turnips and Grass grounds: very little Corn got in: great scarcity of all kinds of Fruit, many trees then appeared to have been killed by the severe winter and cold summer in the year 1799.

#### September.

From the second to the ninth, frequent showers; from thence to the eighteenth, warm and pleasant: on the sixteenth, the Thermometer at noon was at 69°; from the nineteenth, showers to the end of the month: on the third, a violent storm of thunder, lightning and rain, which did considerable damage in the town and neighbourhood of Nottingham.

## [ 17 ]

#### October.

FREQUENT showers from the first to the tenth, with high wind; seasonable weather to the end of the month.

#### Dovember.

HIGH winds and changeable weather for the first ten days, with frost in the morning and rain at noon: on the seventh, about eight o'clock P. M. a hurricane came on from the S. W. which did not continue above half an hour; on the eighth and ninth, high wind and rain, but less violent in this county than in the south, where much mischief has been done: on the ninth, a rapid rise in the Barometer, of eight lines in eleven hours; at ten o'clock A. M. it stood at 28 inches 5 lines, and at nine P. M. it got up to 29 inches 3 lines: from the thirteenth to the twentythird, pleasant weather; on the twenty-fourth rain and snow:—hard frost on the twenty-eighth, as may be seen in the table of Excess of Cold.

#### December.

THE first nine days, frequent showers of rain with a little snow; from the tenth to the nineteenth, thick fogs; during the abovementioned nineteen days, the sun only appeared for a short time on the thirteenth: from the twentieth to the twenty-fourth, very mild; a continuance of fine weather, with a little frost, to the twenty - eighth; on the twenty-ninth, a deep snow; the thirtieth and thirty-first, a severe frost; the Thermometer, on the thirtieth at nine o'clock A. M. was 9 degrees below the freezing point; on the the thirty-first, 11 degrees below.—See the Table.

[ 19.4]

Register of the WINDS for the last sixteen Years, from the Beginning of the Year 1785 to the End of the Year 1800.

YEARS.	East.	West.	North	South	N. E.	S.E.	s.w.	N.W.
CONTROL OFFICER, Making Springs					_==	==	_==	
1785	6	71	4	5	60	59	62	98
1786	37	103	34	19	46	37	40	44'
1787	22	104	12	11	36	44	72	64
1788	30	94	22	16	48	29	55	71
1789	30	67	7	17	31	55	107	51
1790	29	94	6	14	47	54	72	49
1791	31	69	16	23	34	39	95	58
1792	9	. 38	8	45	, 37	24	136	69
1793	1	34	11	15	36	21	154	93
1794	0	23	7	11	20	21	198	85
1795	1	22	12	20	37	22	167	84
1796	5	27	16	9	59	30	138	82
1797	6	27	11	13	51	411	152	64
1798	18	40	20	13	39	40	130	65
1799	12	46	24	20	51	46	113	53
1800	15	50	15	15	51	47	801	64.
TOTAL,	252	914	225	266	673	609	1799	1094

[ 20 ]

Register of the WEATHER for the last 16 Years, from the Beginning of the Year 1785 to the End of the Year 1800.

YEARS.	FROST.		RAIN.	FAIR.
1785	87	34	112	219
1786	68	27	(1.11)	203
1787	48	9	132	224
1788	72	26	122	218
1789	52	21	180	164
1790	47	7	138	220
1791	63	13	138	213
1792	58	13	170	183
1793	59	12	123	230
1794	53	4	125	236
1795	66	28	119	214
1796	51	7	129	230
1797	65	4	149	212
1798	77	10	127	228
1799	78	26	130	209
1800	67	17	122	226
TOTAL,	1011	258	2127	3429

# PARTICIPATE TO THE PARTIE TO THE PARTIE TO THE PARTIE T

Price of Grain at Mansfield, on the last Marketday in every Month, for the Year 1800.



## January zoth.

$\mathbb{W}_{H}$	EAT	per c	r. from	L.	s. 16	D. o to	o 5	6 6	0
Barley, 1									
Oats,	·d	lo.	do.	.1	16	o t	0 2	0	0
Peas,	d	Q.	do.	2	8	o to	9 2	10	0
		Jebi	cuary 27	7th					
Wheat,	600 600	•	from	5	6	8 t	5	17	4
Barley,	40	**	do.	2	2	o t	0 2	12 (	6
Oats,	w	tipe (	do.	2	16	o t	03	0	2
		Ma	rch 27t	h.					
Wheat,	_	-	from	5	13	o to	06	10 (	2
Barley,	•	#	do.	4	0	o to	9 4	10 0	>
Oats,		-	do.	2	18	o to	3	0 0	)
Peas,	•	2	do.	3.	14	o to	4	0 9	•

### [ 22 ]

April 24th.

Wheat, - - from 7 6 8 to 7 9 4

Barley, - do. 3 10 0 to 3 15 0

Oats, - do. 3 0 0 to 3 10 0

Wheat, - - from 5 12 0 to 6 0 0 0 Rye, - do. 4 0 0 to 4 4 0 Oats, - do. 2 10 0 to 2 15 0 Beans, - do. 4 0 0 to 4 4 0 Barley, on the 22d. do. 2 7 0 to 2 2 0

No Barley brought to Market on the 29th.

## June 26th.

Wheat, - - from 6 12 4 to 6 19 8

Oats, - - do. 3 10 0 to 3 12 0

Beans, - - do. 4 16 0 to 5 6 8

No Barley nor Peas.

### July 31st.

Wheat, - - from 4 0 0 to 4 16 0

Oats, - - do. 2 10 0 to 2 14 0

# [ 23 ]

Beans,		from 5	6	8	to	5	12	0
Barley,	on the 24th,	do. 2	14	0	to	3	0	0
	No Barley nor					10000		
	augu	ist 24th.						
Wheat,	0.5 4.0 10	from 7	I	4	to	8	0	0
Barley,	A STATE OF THE	do. 3	3	0	to	4	0	0
Oats,		do. 2	5	0	to	3	0	0
	Septer	nber 25th	6.					
Wheat,	A SAME A MANAGEMENT	from 5	0	0	to	5	9	0
Barley,	Son and the May	do. 4	0	0	to	4	4	0
Oats,	1907 H. M. W. W. W.	do. 1	18	0	to	2	8	0
	<b>Octol</b>	ber zoth.					.,70	
Wheat,			4000			11 21		
· · · · · · · · · · · · · · · · · · ·		from 6						
Barley,		from 6 do. 3						
	ne inching the consistent of		10	0	to	4	14	0
Barley,		do. 3	10	0 0	to	4 2	14	0
Barley,		do. 3	5	0 0	to	4 2	14	0
Barley, Oats,	130ben	do. 3 do. 2	5 ). 0	0 0 0	to to	4 2 6	14 10 5	0 0 4
Barley, Oats, Wheat	Pober	do. 3 do. 2 mber 27th from 6	5 0 0	0 0 0	to to	4 2 6 4	14 10 5 14	0 0 4 0

## [ 24 ]

## Detember 24th.

Wheat,	the state	· · · · · · · · · · · · · · · · · · ·	from	6	s. 13	D. 4	to ?	7	5.	D. O
Barley,		AUT NO	do.	3	10	0	to 4	1	0	0
Oats,	00X -	-	do.	2	4	0	to 2	2 1	0	0
Peas,	010 7	-	do.	3	15	0	to 4	1	0	0

It appears, from a general enquiry made by government, that the present high price of Wheat has been owing to a deficiency in this year's crop, which has not been equal to the annual consumption. There is, however, reason to hope, from the hitherto mildness of the winter, the bounty given by parliament for the importation of Grain, and the plan adopted by great families for limiting the quantity of Bread, that we may venture, under the protection of Divine Providence, to look forward to the commencement of the nineteenth century for a plentiful harvest.





